THE PLANT DISEASE BULLETIN

Issued By

THE PLANT DISEASE SURVEY

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THE PLANT DISEASE BULLETIN

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VEGETATIVE PROLIFERATION IN THE HEADS OF WHEAT REPORTED

BY E. B. MAINS

"In the September 1st issue of the Plant Disease Survey Bulletin I note a statement by Barss concerning the distorted vegetative shoots, produced instead of normal seed from spikelets of wheat. A similar phenomenon occurred in the greenhouse with us this spring. One variety of wheat, Norka, shows this development quite regularly, the heads taking upon themselves a peculiar branched and rebranched appearance. This was noted only in this one variety. Other wheats grown under similar conditions do not show such characteristics. We rather thought that it was the hot conditions of the greenhouse affecting this one variety in particular."

CORN SMUT

Reports of the common corn smut caused by Ustilago zeae have been received from a large number of states. In general, the reports indicate about the usual amount of smut, but those from South Carolina, Florida, and Louisiana indicate less infection than usual. In Ohio R. C. Thomas reported a few fields of Golden Bantam sweet corn that showed 100% infection.

Collaborators in Kansas and Arizona report heavy losses from this disease. As high as 60% infection can be found in some fields in Kansas, according to L. E. Melchers.

REPORTS ON CORN ROOT ROT

The following reports of corn root rot caused by Gibberella saubinetii or by Fusarium spp. have been received from scattered states as follows:

Connecticut: Probably average amount. (Clinton).

Delaware: Has not been as prevalent this season. Smaller percentage of premature stalks this season as result of root rot infection. (Adams, September 1).

Maryland: Corn root rot is very prevalent in the southern counties of the Eastern Shore of Maryland this year. I have seen several fields in which twenty-five to seventy-five percent of the plants were affected. (Jehle, July 24).

Ohio: Impairment of stand from seedling infection most evident in those sections of the state where the soil is not naturally adapted to corn growing. On the natural corn soils the stand is good. In the counties where the corn is most largely grown there was much interest in seed testing and much diseased seed was discarded. A considerable proportion of the seed tested was found to be infested with Fusarium or Diplodia or both. Late rot infection of maturing stalks not yet reported. (Young, August 15).

One field of two and one-half acres investigated showed 90% infection. (Thomas, September 1).

Missouri: Isolations from a number of corn plants show that Fusarium moniliforme is the organism concerned in most cases. (Hopkins, July 5).

Kansas: Commonly present in many fields over the state. Corn severely injured from the heat during August so that it is somewhat difficult to state the amount of damage which is due to root rot. (Melchers, August 15).

DIPLODIA EAR ROT OF CORN REPORTED FROM DELAWARE AND LOUISIANA

J. F. Adams, of Delaware, reports on September 1 that considerable ear rot is appearing in stands of field corn, and C. W. Edgerton, of Louisiana, on the same date states that the disease is very common and severe in the southern part of that state where the rainfall has been heavy, the actual loss not far from 10% according to Edgerton.

BROWN SPOT OF CORN COMMON THIS YEAR

Judging from reports received, the disease of corn caused by Physoderma seems to be very common throughout the South this season. In Illinois, also, the disease seems to be more prevalent than commonly, it being prevalent around Bloomington and is reported by L. R. Tehon as far north as Ogle County. This is the northernmost report for Illinois. Mr. Tehon states that from 15-30% infection occurred in a few fields in that county.

CORN RUST (PUCCINIA SORGHI)

Light infections of this rust have been reported this year from Florida, Louisiana, Illinois, and Minnesota. Both sweet and field corn are affected.

CONSIDERABLE HELMINTHOSPORIUM LEAF SPOT OF CORN REPORTED

Connecticut: Quite bad and much more prominent than usual. Probably the worst trouble of corn this year. (Clinton, September 1).

Delaware: This spot has appeared on field corn throughout the state. All prematured leaves show considerable infection by this fungus. (Adams, September 1).

West Virginia (Morgantown): Rather common on early varieties, but too late to cause much harm. (August 9, Sheldon).

RECENT APPLE SCAB REPORTS

The following reports on the present scab situation show that this has been a bad scab year in the northeastern sections of the country:

Massachusetts: More serious than it has been for years. Especially bad on McIntosh, but also very prevalent on other varieties. I find it on trees and in places where it has never been noticed. (P. J. Anderson, September 1).

Connecticut: Very bad; one of our worst years. (Clinton, September 1).

New Jersey: Very abundant in some localities. (Cook, September 1).

West Virginia: I have observed some striking examples of heavy infection where pink spray was omitted, especially in central and western sections of state. Early infestation in eastern Panhandle was comparatively light due to dry weather; but in other sections, early infection heavy. (Sherwood, September 1).

Arkansas: Considerable scab on most susceptible varieties. (Elliott, September 1).

Ohio: Apple scab has developed more generally amd more seriously than in normal seasons. The period of infection as determined by spore dispersal dates at Wooster by R. C. Thomas, Assistant Botanist, covers a wide range of such possible infection. This made it unlikely that any pre-blossom spray treatment would be fully effective in controlling the disease on fruit. The recurrent showers have led to very extended infection of fruit and later foliage, so that it is very seldom so serious a mid-summer and late summer infection of apple foliage from scab has occurred in Ohio. Even where fruit infection control of the scab was obtained, later season infection of the foliage has resulted with full promise of severe infection under favorable conditions for 1923. (Selby, September 1).

Minnesota: Moderately heavy. Infection averaging about 10% in the Minnetonka fruit growing region. In some cases the damage on the fruit amounted to 5% loss. (Section of Plant Pathology, September 1).

North Dakota: About the usual amount, as nearly as we can tell from reports of growers. Not abundant in well kept orchards or isolated well cared for trees. (Weniger, September 1).

SEPTEMBER 1 REPORTS ON FIRE BLIGHT OF APPLE

Massachusetts: Twig blight type, very prevalent; more so than usual. (P. J. Anderson, September 1).

Connecticut: At least the average amount. (Clinton, September 1).

Ohio: Earlier indications of severe later killing of trees and branches of pome fruits from fire blight have not been realized. In general, the spread of infection of apple trees has been quite limited, although the prevalence of the fire blight attack has been very general and we might say almost severe. There has been the reappearance of renewed infection which has usually accompanied equally serious early attacks of the apple. (Selby, September 1).

Minnesota: Since August 15 fire blight has been reported from Washington and Wright Counties, the injury being rather severe in the latter. At the present time there is only a trace of fire blight in most orchards in Hennepin and Ramsey Counties although one orchard has been observed in which 90% of the trees probably were infected. (Section of Plant Pathology, September 1).

North Dakota: There is still abundant evidence of the severity of this disease this year. Some trees under observation which were somewhat attacked in previous years and then treated carefully in the hope of destroying the disease, started out fine in spring and did not show signs of twig infection until a few weeks ago. (Weniger, September 1).

BITTER ROT OF APPLES

This disease has been reported as occurring scatteringly on apples from Connecticut southward to Georgia, and in Arkansas.

Connecticut: One complaint; apparently above the average. (Clinton, September 1).

Delaware: First observed June 16 on Maiden Blush. Has been very common on Transparent, July 5. (Adams, July 15).

Since last report has become very prevalent on late apples. Wealthy, Nero, Grimes, Winter Banana, Stayman, Stark, Chenango, and Rome have shown infection. Most prevalent in orchards receiving no spray in July. (Adams, September 1).

Virginia: Appearing scatteringly on susceptible varieties in the Roanoke and Staunton sections. Not of much economic importance,

however, at this time. A few unsprayed apples of a susceptible sort showed a heavy percentage of affected fruit. (R. J. Haskell, September 1).

West Virginia: About usual amount observed so far. Very local and on particularly susceptible varieties. (Sherwood, September 1).

South Carolina: Noted in station orchard and bad infection in one sample submitted for diagnosis. Probably widespread. Some county agents report it as severe. (Ludwig, September 1).

Georgia: Due to rainy season generally reported. Causing considerable loss, hard to estimate percent. (McHatton, July 15).

Arkansas: Severe in some orchards. Dry weather has checked it during last month. On Grimes, Ben Davis, King David, and Jonathan. (Elliott, September 1).

Ohio: Bitter rot has apparently not developed to marked extent during the season of 1922, but was collected with apple blotch on specimens of Maiden Blush apple in Ross County, July 28. Other scattered infections have been reported, but no general outbreak. (Selby, September 1).

SOME RECENT CEDAR RUST REPORTS

Massachusetts: More than usually prevalent, especially on Wealthy, but also on Winter Banana and to some extent on other varieties. (P. J. Anderson, September 1).

Connecticut: At least as bad as average years. (Clinton, September 1).

Maryland: Unusually severe not only on Eastern Shore but all over state, attacking both fruit and leaves. Many specimens received at Experiment Station, College Park. (Jehle, July 28).

South Carolina: One slight infestation noted since last report. (Ludwig, September 1).

Ohio: Scattered occurrence over the state of infection on fruit and foliage of the apple shown in southern counties where red cedar is permitted to occupy adjacent grounds. (Selby, September 1).

Minnesota: Only very late infections have been found in Carver and Hennepin Counties. (Section of Plant Pathology, September 1).

DELAWARE, OHIO, AND ARKANSAS REPORT APPLE FRUIT SPOT

Phoma pomi has been reported by collaborators as follows:

Delaware: First observed August 5. Has become very prevalent on fruit

receiving no July spray. Very little infection found last year and its prevalence this year correlated with lack of spraying and heavy rainfall in July. The Jonathan, Rome, and Grimes show greatest susceptibility. (Adams, September 1).

Arkansas: Considerable on some Jonathan, Grimes, and King David. Not seen on other varieties. Worse in some orchards than in others. Most severe on inside fruit that had not been well covered. (Elliott, September 1).

Ohio: This disease was first observed this year on August 10 and found only in orchards where no mid-July spray was applied. Upon such varieties as Jonathan, Mann, and others of the green type, infection has been noted to be severe. (Thomas, September 1).

APPLE BLACK ROT REPORTS OF SEPTEMBER 1

Maryland: Quite a lot of black rot on fruit of Williams in Maryland. Earlier in season was observed as quite severe on Red Astrachan. (Jehle, July 28).

West Virginia: About usual amount observed so far on fruit. Better spraying generally than last year apparently reduced damage following worm injury, but considerable infection locally due to frost injury at calyx. Leaf spot exceedingly heavy in some places. (Sherwood, September 1).

Arkansas: Rather common as a calyx and stem end rot. On a whole less than usual, due to less coddling moth injury. (Elliott, September 1).

Ohio: For Ohio the occurrence of black rot in marked infection has been rather less than in 1921, although the work of R. C. Thomas determined, as reported July 1, that the time of spore discharge at Wooster was coincident with that of apple scab. The later season's developments have not quite maintained expectations of equal infection with that of 1921 from the black rot fungus upon foliage. Probably the later development of the season will change the estimate. Black rot infections upon fruit have been numerous and conditions are fully ripe for increased development at any time during the remainder of the season of 1922 or following. (Selby, September 1).

Minnesota: Common on Greenings in Washington and Houston Counties. Infection ran as high as 5% on the fruit. (Section of Plant Pathology, September 1).

APPLE BLOTCH CAUSED BY PHYLLOSTICTA SOLITARIA

West Virginia: More blotch this year than usual. Has been on the increase due to lack of spraying at proper time. Severe on Northwest Greenings and Dutchess. Observed also on Baldwin, Stark, Rome Beauty, Ben Davis, Spitzenburg, and others. Local rather than general. Greenings and

Dutchess apparently very susceptible to canker. (Sherwood, September 1).

Arkansas: On Ben Davis, Grimes, Oliver, Missouri Pippin, Limber Twig, and some other varieties. Rather bad in some orchards. Unsprayed Ben Davis badly injured. (Elliott, September 1).

Ohio: Apple blotch has, up to this date, showed less evidence of occurrence than in previous seasons. Indeed marked demonstrations of the efficiency of the Bordeaux mixture sprays in control of apple blotch have confirmed the judgment of those who are conducting the spray tests, namely; first, apple blotch is not a matter of north or south in its infections in the state, being distributed entirely across the state; second, that even in the most pronounced infected areas, as notable in Clermont County, southwestern Ohio, the thorough going work of the apple growers applying the spray control developed by the Extension Service under Prof. F. H. Beach, has shown complete success, even with such susceptible varieties as Smith Cider and Mann. This was well shown in the apple growers tour in Clermont County, July 26. Satisfaction is expressed in this outcome. (Selby, September 1).

BROWN ROT OF APPLES REPORTED

Rotting of apples due to Sclerotinia cinerea is reported from Massachusetts, Delaware, West Virginia, and Ohio. Early varieties, especially Red Astrachan, are mentioned as especially affected.

WEST VIRGINIA REPORTS MEASLES OF APPLES

According to Collaborator Sherwood, this trouble is increasing and apparently causing considerable damage in certain sections of southeastern West Virginia. Many samples have been sent in to the Experiment Station and Mr. Sherwood has frequently observed the trouble.

BITTER PIT, DROUTH SPOT, AND RELATED TROUBLES

Damage from these non-parasitic diseases is reported from Delaware, Virginia, and Arkansas. York Imperial, Grimes Golden, and Jonathan are mentioned as especially affected. A large proportion of the Yorks shipped from Virginia this year will show spots of this nature.

TEXAS ROOT ROT REPORTED ON APPLE IN ARIZONA

According to J. G. Brown, about 30% of the trees in the 200 acres of apples in Greenlee County, Arizona are affected with this disease. It probably causes losses in other counties of the southern part of the state.

RECENT REPORTS OF BROWN ROT OF PEACHES

Connecticut: Too early for late varieties, but on the whole at least average amount. (Clinton, September 1).

Pennsylvania: Appeared unusually early, June 7, Adams County. Reports indicate about average losses. (Thurston, July 31).

Maryland: Brown rot severe on all unsprayed fruit. Sprayed (self-boiled and atomic sulfur) trees the disease was well controlled. A few are dusting. (Jehle, July 28).

Arkansas: More than usual in unsprayed orchards. (Elliott, August 15).

Ohio: Weather conditions have been favorable for infection and brown rot is general with complete loss in many orchards not sprayed. Very severe twig blight is prevalent in southern Ohio. In orchards sprayed with self-boiled lime sulphur or with lime sulphur glue, the rot is held in good control. The importance of a spray two to three weeks before harvesting is very apparent, and this is the first year that such practice is being generally followed in certain peach districts of the state. (Thomas, September 1).

Illinois: Brown rot has not been very serious in Illinois this year due in part to the dry season. Efficient control of curculio has also reduced this disease. I have seen only one orchard, and this a very much neglected one, where brown rot was serious. Few cases seen in the market as compared with other years. (Anderson, September 1).

Kansas: Present in every peach orchard. Severe losses in many sections. Average loss 10% of crop in unsprayed orchards. Amsden variety very susceptible. (Stokdyk, September 1).

LESS PEACH BLIGHT IN WASHINGTON THIS YEAR

According to B. F. Dana of Pullman, Washington, the infection of peaches by Coryneum beijerinckii is very much reduced over normal years. The actual loss this season in commercial orchards will be small.

REPORTS OF BACTERIAL SPOT OF PEACH

Arkansas: Quite common, and severe on ill-kept trees. (Elliott, August 15).

Illinois: Serious in southern Illinois on both fruit and foliage. Entirely absent in many orchards while others show 30-50% infected fruit. Average on Elberta and Hale about 5% for fruit infection. Leaf infection not yet causing very serious defoliation, although most orchards show severe infection. About 50% of foliage lost in some few orchards observed on August 20. In our variety orchard at Urbana, representing about 50 varieties, the Hale and Elberta were the only ones showing any appreciable loss from shot hole and few other varieties were

infected. Hale seems to be more susceptible than Elberta in most orchards. At the University farm the percent of fruit infection on these varieties was about equal. (Anderson, September 1).

Kansas: General infection throughout state. Severe in some sections.(Stokdyk, September 1).

SERIOUS LOSS OF PEACHES IN ILLINOIS FROM A FRUIT SCALD OF UNCERTAIN CAUSE

The following accounts of injury to peaches by H. W. Anderson are of interest. Other collaborators who have made observations on similar troubles this year should report them to the Survey for summarizing.

"Numerous orchardists south of Carbondale report serious loss due to a peculiar condition of the fruit. This shows as a dark sunken spot from one-fourth to one-half inch in diameter near the stem end on the upper surface. Gum often exudes. The flesh is dry immediately below the lesion but not far into the pulp. Found almost exclusively in poorly nourished orchards.While the cause has not been definitely established, it is supposed to be due to a few very hot days the latter part of June."(July 1).

"Since my last report on this disease, I have found it general throughout the south half of the state, but worse in the extreme south. It has caused more loss than any one factor this season. I still believe it is due to weather and spray injury. Would like to hear from other states." (September 1).

PREMATURING AND UNEVEN SIZE OF PEACHES

Connecticut: A good many trees are showing premature fruit from yellows or some other cause. (Clinton, September 1).

Illinois: J. H. Hale variety in many orchards showed a dozen or 20 peaches on each tree of enormous size while all the rest were very small - almost an inch in diameter. This seems to be characteristic of the variety, but trees in the same orchard showed uniform size. This is not the "little peach" disease of Smith et al. (Anderson, September 1).

INFORMATION DESIRED ON THE PREVALENCE OF RASPBERRY MOSAIC AND LEAF CURL

In a recent letter, J. E. Howitt, of the Ontario Agricultural College says that Ontario raspberry growers are considerably concerned over the prevalence of mosaic and leaf curl in their plantations. Reports of mosaic are also at hand from New York, Ohio, and Minnesota, but definite information as to the relative importance of the two troubles, or regarding losses or success of control measures, have not been received. Any information of this kind from those who have made observations on these diseases this year will be of much value to the pathologists of the country.

REPORTS ON COTTON DISEASES FROM SOUTH CAROLINA, LOUISIANA, AND ARKANSAS

Wilt (Fusarium vasinfectum)

South Carolina: Three records so far this year. Gradually working its way into the Piedmont section, where, until recently, it has been quite rare. I believe that its migration into the Piedmont supports Elliott's belief that it is disseminated more or less in the seed. Many sandy soils in the Coastal Plain have to be planted in resistant varieties in order to produce a crop. (Ludwig, September 1).

Louisiana: Common and destructive in some localities. Apparently the damage caused by this disease is decreasing from year to year. (Edgerton, September 1).

Arkansas: Common and widespread. Severe in eastern Arkansas. (Elliott, September 1).

Anthracnose (Colletotrichum gossypii)

South Carolina: Apparently worse than last year. Some county agents report 5% or more of loss. The average is probably less. (Ludwig, September 1).

Louisiana: Common and causing about the ordinary loss. (Edgerton, September 1.).

Angular leaf spot (Bacterium malvacearum)

South Carolina: Widespread but apparently not serious except in isolated cases. (Ludwig, September 1).

Louisiana: Very common throughout the season on both leaves and bolls. (Edgerton, September 1).

Arkansas: Very spotted. Some fields badly attacked, others much less so. (Elliott, June 23).

POTATO LATE BLIGHT REPORTS AS OF SEPTEMBER 1

Massachusetts: Became noticeable about the first of August and has spread rapidly and been very destructive. I have never seen it so prevalent in this state during the seven years I have been here. Wet, cool weather has been ideal throughout the month for its spread. Most of the vines died in a very short time. Vines alive now only where they have been sprayed. (Anderson, September 1).

Connecticut: Much more than usual but not so bad as expected from early start. Some not reported so far, and probably considerable in late varieties. (Clinton, September 1).

New York (Long Island): Disease has been general over Island and in only a

few exceptional cases have farmers successfully combatted it by spraying or dusting. Indeed, owing to favorable conditions for rot late in the season, many who sprayed most thoroughly will suffer the most severe loss from late blight rot. (Clayton, August 26).

New Jersey: Throughout central part of state on early crop. (Cook, September 1.).

Maryland: Found on the early crop on the Eastern Shore. (Jehle, July 28).

Oregon: No authentic reports so far. The exceedingly dry conditions during May, June, and July as well as August throughout the state did not afford the disease any chance for development. (Barss, September 1).

REPORTS OF FUSARIUM WILT OF POTATOES

South Carolina: Reported by Mr. L. E. Tisdale of the Crop Pest Commission, as being somewhat general and causing moderate to slight damage on John's Island, near Charleston. (Ludwig, August 1).

Georgia: This disease has been reported from many counties and seems to be especially prevalent on the Red Bliss and Early Rose potato. The Irish Cobbler seems to be the most immune variety. (J. H. Miller, August 1).

Mississippi: Reported from Laurel and Gulfport. Doubtless present in other localities. Damage very slight. (Neal, August 1).

Ohio: Comparatively few reports have thus far this season come to our attention. (Thomas, September 1).

Minnesota: Considerable infection in the northern part of the state and the Red River Valley. (Section of Plant Pathology, September 1).

North Dakota: There is considerable wilt showing in late fields at the present time both here at Fargo and also out in the state. Apparently the total amount of infection is not much in excess of the average year. (Weniger, September 1).

Missouri: A number of specimens of this disease have been sent in. (Hopkins, July 5).

Kansas: Kansas potato soils are apparently heavily infested with this organism, for Kansas potatoes, if stored, show a high percent (80% approximately) of internal vascular browning, from which Fusarium oxysporum can be readily isolated. No case of wilt in the fields has been noticed, however, due probably to some ecologic factor. (White, September 1).

Montana: Numerous complaints of losses due to this disease in late June. Nothing has come in lately. None seen. July has been extraordinarily cool and rainy in most sections of Montana. (Jennison, August 1).

BLACKLEG SERIOUS IN SOME OF THE WESTERN POTATO STATES

The accompanying reports emphasize the seriousness of this disease in some of our western states:

Minnesota: Very heavy infection of blackleg (Bacillus phytophthorus) reported from the Red River Valley. Up to 5% of the plants infected in certified fields. Up to 20% in other fields. (Section of Plant Pathology, September 1).

North Dakota: Wet rot of tubers is showing up in great abundance, following the heavy infection of vines earlier in the season. The early maturing fields were more severely affected with blackleg than the later fields. Striking differences between treated and untreated seed are showing up this year. (Weniger, September 1).

Kansas: Caused considerable loss, especially in untreated fields, in some of which fully 30% of the plants were lost. The average loss would probably run around 7-8%. (White, September 1).

Oregon: General throughout the state but damage very small this year, much less than usual because there was little or no rain in any part of the state for two months after planting. (Barss, September 1).

POTATO MOSAIC REPORTS

New Hampshire: Generally present throughout the state. (Butler, August 1).

Massachusetts: Not as prevalent as usual. (Anderson, September 1).

Connecticut: No complaints; few reports; apparently less than usual. (Clinton, September 1).

New Jersey: About same as for years past. (Cook, September 1).

Minnesota: Considerable mosaic has been reported on Green Mountains. Certified Triumphs are comparatively free. In other fields of Triumphs infection ranged from 20-50-100%. (Section of Plant Pathology, September 1).

North Dakota: Very heavy infection in some fields of Bliss Triumph, particularly in north-central counties of the state. Very little mosaic in Early Ohios, but some in Green Mountains.

Kansas: Trace only in fields as previously reported. Mosaic symptoms masked in this climate. Seed was planted from known mosaic plants, but the vines appeared healthy and normal. (White, September 1).

Oregon: General and serious over the state, a real problem. The value of certified seed from carefully inspected and rogued fields is evident in the small amount of mosaic generally present in fields planted with such seed. Some commercial fields have been found with as high as 45% of the disease. (Barss, September 1).

POTATO LEAF ROLL

New Hampshire: Generally present throughout the state. (Butler, August 1).

New Jersey: More than usual. (Cook, September 1).

Kentucky: In Louisville district, particularly in the 18th Street Road district, and on growers' own stock and on Minnesota certified grown adjacent 15 to 40% on plants 6-8 inches high. (Gardner, August 1).

Wisconsin: Have seen only one plant showing symptoms of leaf roll. In Washburn County. (Vaughan, August 1).

Minnesota: A small amount of leaf roll was observed in northwestern Minnesota, but the disease was not very prevalent. (Section of Plant Pathology, August 15).

Kansas: Trace only, and these cases not pronounced. (White, July 15).
Trace only, as previously reported. It is suggested that both leaf roll and mosaic symptoms are masked due to high temperatures. It is known that we are importing these diseases each year from northern grown seed, yet the diseases do not appear in striking form. (White, September 1).

OREGON REPORTS ON THE VERTICILIUM WILT OF POTATOES

Oregon: General throughout the state and one of the most serious causes of large losses. The use of certified seed and soil rotation result in material reduction in wilt but such practices are not general enough to make much of an impression as yet on the state situation. (Barss, September 1).

TOMATO MOSAIC REPORTS

Delaware: Very prevalent. Some fields observed with 75% infection August 4. (Adams, August 15).

Maryland: Reported from Preston, Carolina County by R. A. Jehle. One field showed 5% of vines affected. (Jehle, July 28).

West Virginia: Not common. Usually an occasional plant found in patch. (Sherwood, August 1).

Ohio: A few reports, mostly from greenhouses in the Cleveland district. (Young, August 15).

Michigan: Reported from Wayne County, July 25. Only occasional plants found in commercial fields. (Nelson, August 15).

Oregon: Reported from Marion and Polk Counties as slight. The same is probably true for the state as a whole. It is reported, however, from Crook

County that the disease is general and abundant there. In Lane County it has been bad under glass but due to better precautions this year the loss in greenhouses there has been only about 10%, according to Fruit Inspector Stewart. (Barss, August 15).

WESTERN YELLOW BLIGHT OF TOMATOES AS REPORTED FROM OREGON

Oregon: Not reported as serious in western Oregon from north to south. Reported as severe in the Umatilla Project in Umatilla County where, as usual, it is causing 50% crop loss, according to H. K. Dean Superintendent of the Branch Station at Hermiston. The same is probably true for the other Columbia Basin sections where this disease constitutes the main limiting factor to tomato production. (Barss, August 15).

FUSARIUM STEM ROT OF SWEET POTATOES IN ARKANSAS AND KANSAS

Arkansas: Widespread and severe in places. The results from certified seed and slips have been remarkable in increasing the acreage of disease-free fields. In many places the certified seed has driven all other off the market even at three to four times the price of the uncertified stuff. (Elliott, August 15).

Kansas: Prevalent in every sweet potato field. Some fields in Garden City region show 75% loss. Average loss in unselected fields, 20%. Porto Rico variety showing remarkable resistance. Growers who selected seed last year reduced their loss to 3%. (Stokdyk, September 1).

MORE REPORTS ON TOBACCO DISEASES

Wildfire (Bacterium tabacum)

Massachusetts: Due to the rainy weather during August this disease has continued to spread rapidly up to the time of harvesting. Many fields were cut before mature rather than risk any further loss from wildfire. Some fields not harvested at all. Few fields free from the disease. Many growers contemplate reducing the acreage or abandoning the growing of tobacco entirely rather than risk the same loss another year. (Anderson, September 1).

Connecticut: Serious in some fields. Has now appeared in all the tobacco towns of the state. (Clinton, September 1).

Black root rot (Thielavia basicola)

Massachusetts: Serious in a few fields, but not observed in most of them. (Anderson, September 1).

Connecticut: Perhaps the average amount, few reports. (Clinton, September 1).

Virginia: More than usual, many fields are quite patchy in appearance. (Fromme, August 1).

Ohio: Root rot caused great loss by retarding the growth of plants in unsterilized plant beds. Many growers reduced their acreage on this account and some abandoned it entirely. The weather after transplanting was unfavorable to the further development of the disease, so that the loss is largely confined to the reduced yields due to late planting and restricted acreage. (True Houser, Germantown, September 1).

Fusarium

Ohio: The plant beds of two growers near Germantown were seriously affected by a disease caused by a species of Fusarium. The leaves were thickly dotted with yellowish brown spots of considerable size and roundish outline. From a distance the plants presented a sickly yellowish appearance. Although some of the affected plants were transplanted, the disease disappeared in the field and the damage was confined to the reduction of seedlings which reached a stage suitable for transplanting. (True Houser, Germantown, September 1).

Mosaic

Ohio: Mosaic is less prevalent than any season for several years and is of practically no economic importance this year. (True Houser, Germantown, September 1).

White speck (Macrosporium tabacinum)

Ohio: This disease has not been of economic importance in Ohio, but a limited number of infected plants scattered over the tobacco areas of the state are found from year to year. There is about the normal amount of this type of infection this year. In addition, there is in Brown County, a small, heavily infected area which presents a peculiar manifestation of the disease characterized by dark colored lesions on the under side of mid-ribs of the leaves and in some cases on the stalks. The affected ribs fail to elongate while the remainder of the leaf continues to grow, producing a decided ruffling of the leaf blades. Only a minor part of the affected leaves show the white specks or spots which are ordinarily characteristic of and have given name to the "White Speck" disease. (True Houser, Germantown, September 1).

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U. S. Department of Agriculture,
Washington, D. C.